POR SF
11.3.18.1 V11

Oregon Department of Environmental Quality

GUIDANCE FOR ECOLOGICAL RISK ASSESSMENT
LEVEL I - SCOPING

ATTACHMENT 1
Ecological Scoping Checklist

Site Name	Kinder Morgan Linnton Facility
Date of Site Visit	March 13, 2002
Site Location	Linnton, northwest of Portland, along the Willamette River
Site Visit Conducted by	Heather Carlsson, Emily Moshofsky

Part ❶

CONTAMINANTS OF INTEREST Types, Classes, Or Specific Hazardous Substances ‡ Known or Suspected	Onsite	Adjacent to or in location of the facility†
Aromatic volatile organics (e.g. BTEX and additives) related to gasoline product	SS, Sub, Sed, GW	At Linnton Planing Mill
Total petroleum hydrocarbons (TPHs) as gasoline, diesel, and oil related to petroleum handling operations	SS, Sub, Sed, GW	
Polynuclear aromatic hydrocarbon (PAH) compounds related to diesel/heavy oil product	SS, Sub, Sed, GW	
Metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc)	SS, Sub, GW	
Volatile organic compounds (VOCs) related to storage of solvents at the site	SS, Sub, GW	
Polychlorinated biphenyl (PCB) compounds related to electric transformer oil near the electric building	Suspected in SS	
Ethanol related to potential releases related to storage and handling of ethanol	Suspected	

‡ As defined by OAR 340-122-115(30) † As defined by OAR 340-122-115(34)

Part ❷

OBSERVED IMPACTS ASSOCIATED WITH THE SITE	Finding
Onsite vegetation (None, Limited, Extensive)	N
Vegetation in the locality of the site (None, Limited, Extensive)	L
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	N
Discussion: There is no habitat on-site; therefore, there were no observable impacts to habitat and its potentially associated wildlife.	

ATTACHMENT 1
Ecological Scoping Checklist (cont'd)

Part ❸

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial - Wooded	
Percentage of site that is wooded	~0 (3 trees)
Dominant vegetation type (**E**vergreen, **D**eciduous, **M**ixed)	**D**
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	6" to 12"
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	None
Terrestrial – Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	~0 (~4 shrubs)
Dominant vegetation type (**S**crub, **S**hrub, **G**rasses, **O**ther)	**Sh, G**
Prominent height of vegetation (<2', 2' to 5', >5')	2' to 5'
Density of vegetation (**D**ense, **P**atchy, **S**parse)	**S**
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	None
Terrestrial- Ruderal	
Percentage of site that is ruderal	0
Dominant vegetation type (**L**andscaped, **A**griculture, **B**are ground)	N/A
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	N/A
Density of vegetation (**D**ense, **P**atchy, **S**parse)	N/A
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	None
Aquatic – Non-flowing (lentic)	
Percentage of site that is covered by lakes or ponds	0
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **L**agoon **R**eservoir, **C**anal)	N/A
Size (acres), average depth (feet), trophic status of water bodies	N/A
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff	N/A
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	N/A
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	N/A
Vegetation present (**S**ubmerged, **E**mergent, **F**loating)	N/A
Obvious wetlands present (**Y**es / **N**o)	**N**
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	N/A
Aquatic – Flowing (lotic)	
Percentage of site that is covered by rivers, streams (brooks, creeks), intermittent streams, dry wash, arroyo, ditches, or channel waterway	0 (next to Willamette R.)
Type of water bodies (**R**ivers, **S**treams, **I**ntermittent streams, **D**ry wash, **A**rroyo, **D**itches, **C**hannel waterway)	R
Size (acres), average depth (feet), approximate flow rate (cfs) of water bodies	N/A
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet)	**B/S/**~10 ft
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff	N/A
Tidal influence (**Y**es / **N**o)	**Y**
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	N/A
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	N/A
Vegetation present (**S**ubmerged, **E**mergent, **F**loating)	N/A
Obvious wetlands present (**Y**es / **N**o)	**N**
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	None

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Aquatic – Wetlands	
Obvious or designated wetlands present (Yes / No)	N
Wetlands suspected as site is/has (Adjacent to water body, in Floodplain, Standing water, Dark wet soils, Mud cracks, Debris line, Water marks)	N/A
Vegetation present (Submerged, Emergent, Scrub/shrub, Wooded)	N/A
Size (acres), average depth (feet) of suspected wetlands	N/A
Source water (River, Stream, Groundwater, Industrial discharge, Surface water runoff	N/A
Water discharge point (None, River, Stream, Groundwater, Wetlands impoundment)	N/A
Tidal influence (Yes / No)	N/A
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	N/A

* **P**: Photographic documentation of these features is highly recommended.

Part ❹

ECOLOGICALLY IMPORTANT SPECIES / HABITATS OBSERVED
While there are ecologically important species listed within 2-5 miles of the site, there was no evidence of those species on or near the site at the time of the site visit. The few isolated trees and shrubs on the riverbank do not provide adequate habitat for any long-term residence by wildlife species. The grass on the bank is in isolated tufts and seasonal, therefore, it does not provide sufficient grass for grazing animals. Swallows were seen flying under the roof of the platform, but there is no evidence that they nest there. There is very little natural or man made shelter available for wildlife and there is no food source on site, excluding the Willamette River. Wildlife that prey on fish may access the site on the east side. However, there is some potentially suitable habitat on adjacent properties both north and south of the site where impacts may occur if contaminants from the site migrate to these areas.

ATTACHMENT 2
Evaluation of Receptor-Pathway Interactions

EVALUATION OF RECEPTOR-PATHWAY INTERACTIONS	Y	N	U
Are hazardous substances present or potentially present in surface waters? **AND** **Are ecologically important species or habitats present?** **AND** **Could hazardous substances reach these receptors via surface water?**	Y		U U
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in surface waters. • Ability of hazardous substances to migrate to surface waters. • Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters. • Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters. • Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.			
Are hazardous substances present or potentially present in groundwater? **AND** **Are ecologically important species or habitats present?** **AND** **Could hazardous substances reach these receptors via groundwater?**	Y	N	 U
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in groundwater. • Ability of hazardous substances to migrate to groundwater. • Potential for hazardous substances to migrate via groundwater and discharge into habitats and/or surface waters. • Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth). • Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.			

"Yes" = yes; "N" = No, "U" = Unknown (counts as a "Y")

ATTACHMENT 2
Evaluation of Receptor-Pathway Interactions (cont'd)

EVALUATION OF RECEPTOR-PATHWAY INTERATIONS	Y	N	U
Are hazardous substances present or potentially present in sediments? **AND** **Are ecologically important species or habitats present?** **AND** **Could hazardous substances reach these receptors via contact with sediments?**	Y		 U U
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in sediment. • Ability of hazardous substances to leach or erode from surface soils and be carried into sediment via surface runoff. • Potential for contaminated groundwater to upwell through, and deposit contaminants in, sediments. • If sediments are present in an area that is only periodically inundated with water, terrestrial species may be dermally exposed during dry periods. Aquatic receptors may be directly exposed to sediments or may be exposed through osmotic exchange, respiration or ventilation of sediment pore waters. • Terrestrial plants may be exposed to sediment in an area that is only periodically inundated with water. • If sediments are present in an area that is only periodically inundated with water, terrestrial species may have direct access to sediments for the purposes of incidental ingestion. Aquatic receptors may regularly or incidentally ingest sediment while foraging.			
Are hazardous substances present or potentially present in prey or food items of ecologically important receptors? **AND** **Are ecologically important species or habitats present?** **AND** **Could hazardous substances reach these receptors via consumption of food items?**			U U U
When answering the above questions, consider the following: • Higher trophic level terrestrial and aquatic consumers and predators may be exposed through consumption of contaminated food sources. • In general, organic contaminants with log $K_{ow} > 3.5$ may accumulate in terrestrial mammals and those with a log $K_{ow} > 5$ may accumulate in aquatic vertebrates.			

"Yes" = yes; "N" = No, "U" = Unknown (counts as a "Y")

ATTACHMENT 2
Evaluation of Receptor-Pathway Interactions (cont'd)

EVALUATION OF RECEPTOR-PATHWAY INTERATIONS	Y	N	U
Are hazardous substances present or potentially present in surficial soils? **AND** **Are ecologically important species or habitats present?** **AND** **Could hazardous substances reach these receptors via incidental ingestion of or dermal contact with surficial soils?**	Y	 N N	
When answering the above questions, consider the following: • Known or suspected presence of hazardous substances in surficial (~1m depth) soils. • Ability of hazardous substances to migrate to surficial soils. • Significant exposure via dermal contact would generally be limited to organic contaminants which are lipophilic and cross epidermal barriers. • Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash). • Contaminants in bulk soil may partition into soil solution, making them available to roots. • Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.			
Are hazardous substances present or potentially present in soils? **AND** **Are ecologically important species or habitats present?** **AND** **Could hazardous substances reach these receptors via vapors or fugitive dust carried in surface air or confined in burrows?**	Y	 N N	
When answering the above questions, consider the following: • Volatility of the hazardous substance (volatile chemicals generally have Henry's Law constant > 10^{-5} atm-m^3/mol and molecular weight < 200 g/mol). • Exposure via inhalation is most important to organisms that burrow in contaminated soils, given the limited amounts of air present to dilute vapors and an absence of air movement to disperse gases. • Exposure via inhalation of fugitive dust is particularly applicable to ground-dwelling species that could be exposed to dust disturbed by their foraging or burrowing activities or by wind movement. • Foliar uptake of organic vapors would be limited to those contaminants with relatively high vapor pressures. • Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces.			

"Yes" = yes; "N" = No, "U" = Unknown (counts as a "Y")

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Kinder Morgan Liquid Terminals, LLC	Linnton Terminal, Linnton, Oregon	25693757.00003

Photo No.	Date:
1	03-13-02

Direction Photo Taken:

North

Description:
Photo shows rail spur going through site where rail cars formerly transported the product.

Photo No.	Date:
2	03-13-02

Direction Photo Taken:

East

Description:
Standing on the west-most point of the site. This photo shows the area where sandblasting formerly took place.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Kinder Morgan Liquid Terminals, LLC	Linnton Terminal, Linnton, Oregon	25693757.00003

Photo No.	Date:
3	03-13-02

Direction Photo Taken:

South

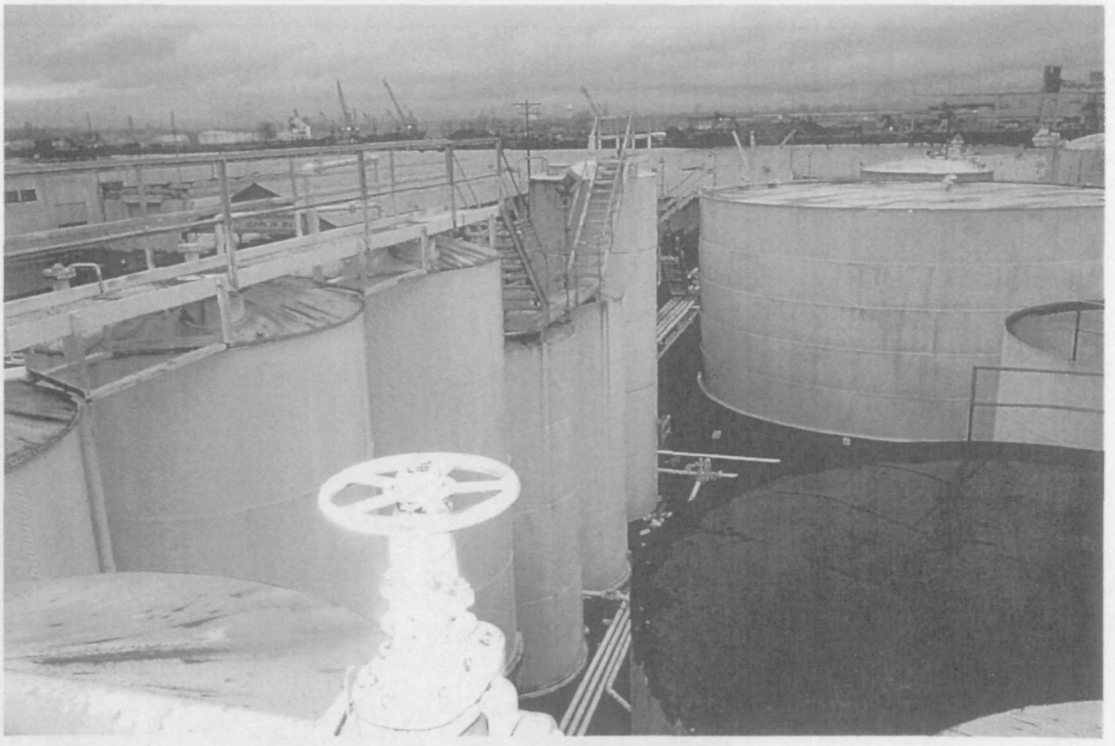
Description:
Southwest corner of site showing area where sandblasting formerly took place.

Photo No.	Date:
4	03-13-02

Direction Photo Taken:

East

Description:
Photo was taken on top of the tanks, towards the Willamette River.



URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Kinder Morgan Liquid Terminals, LLC	Linnton Terminal, Linnton, Oregon	25693757.00003

Photo No.	Date:
5	03-13-02

Direction Photo Taken:

North

Description:
Photo taken near southern most point of the site showing the above ground tanks and piping system.

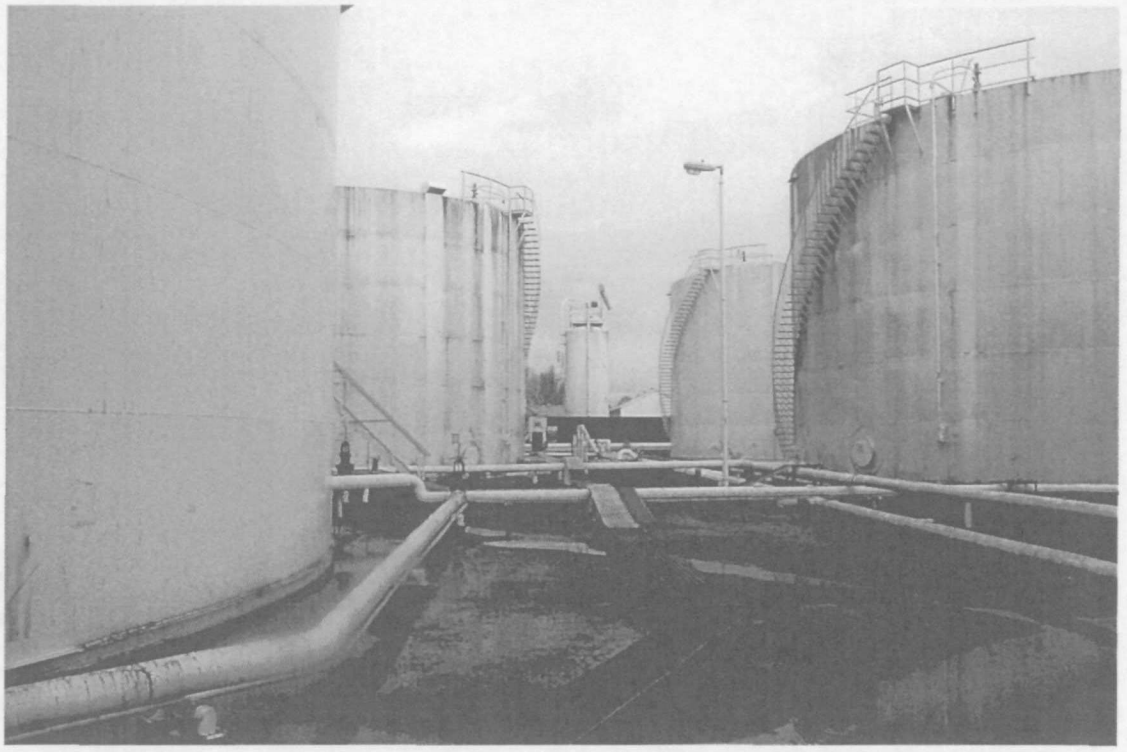
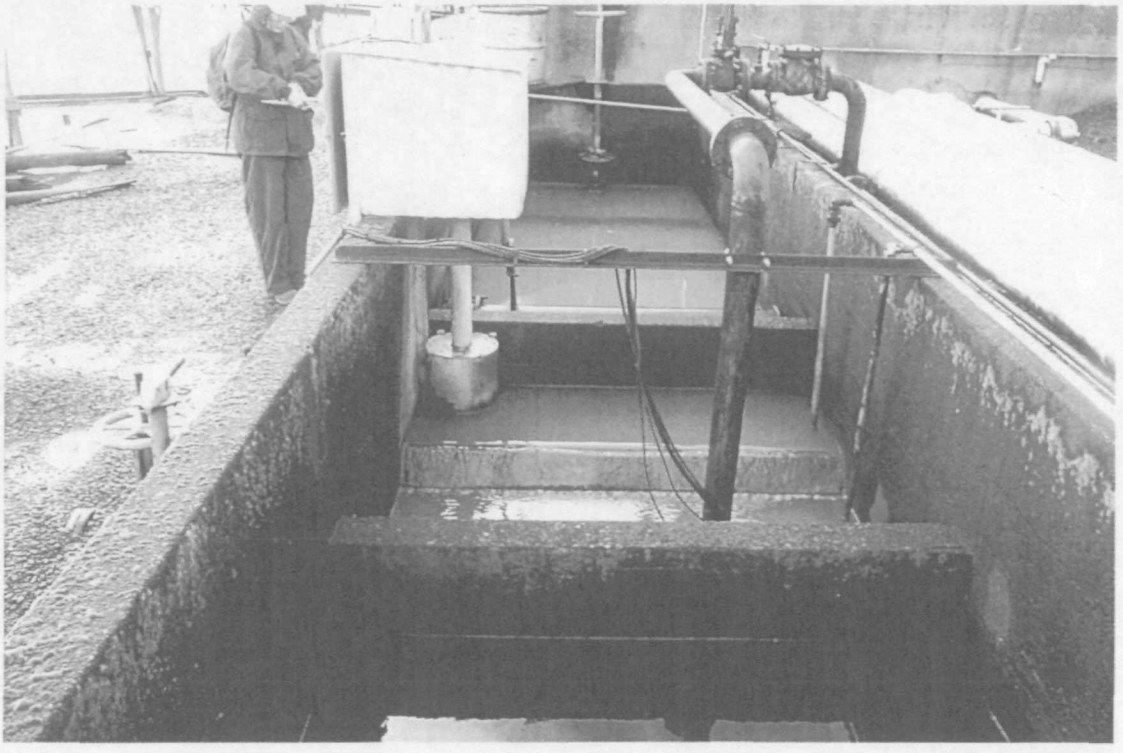


Photo No.	Date:
6	03-13-02

Direction Photo Taken:

South

Description:
This photo shows the oil/water separator on the site.



URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Kinder Morgan Liquid Terminals, LLC	Linnton Terminal, Linnton, Oregon	25693757.00003

Photo No.	Date:
7	03-13-02

Direction Photo Taken:

South

Description:
This photo shows the wharf and the east side of the site, adjacent to the Willamette River.

Photo No.	Date:
8	03-13-02

Direction Photo Taken:

West

Description:
This photo shows where trucks formerly loaded product.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Kinder Morgan Liquid Terminals, LLC	Linnton Terminal, Linnton, Oregon	25693757.00003

Photo No.	Date:
9	03-13-02

Direction Photo Taken:

North

Description:
This photo shows individual shrubs on the bank of the Willamette River, with the wharf in the background.

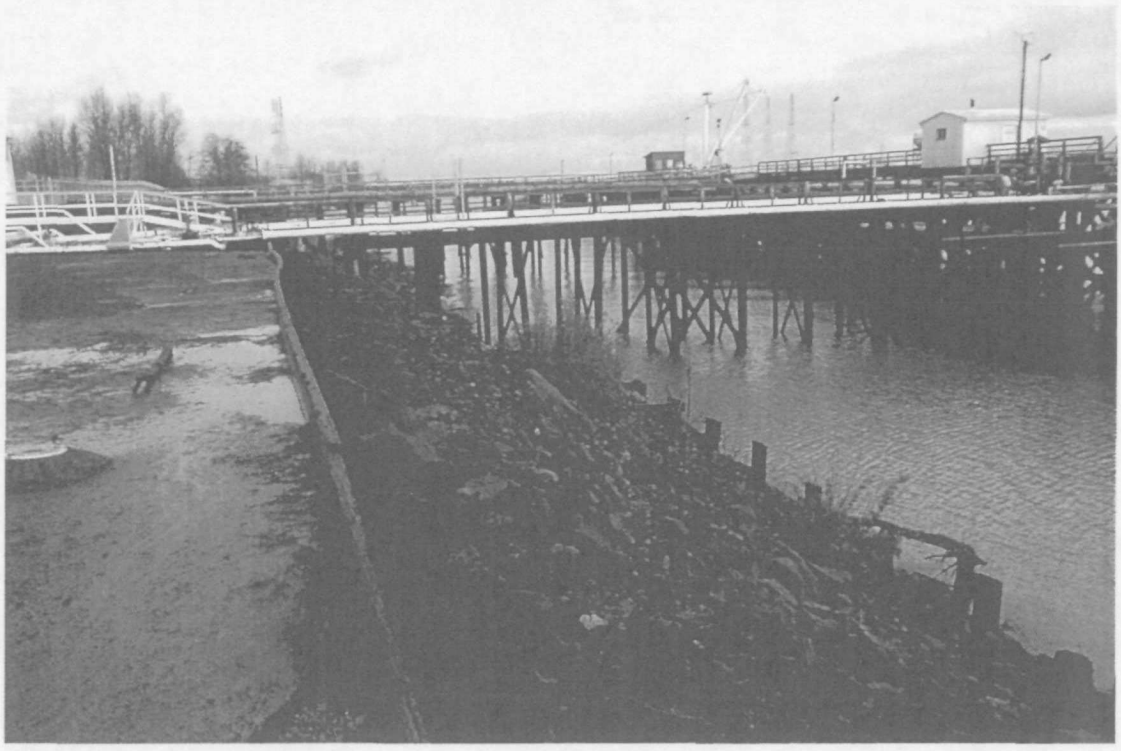


Photo No.	Date:
10	03-13-02

Direction Photo Taken:

Northwest

Description:
This photo shows the sparse riparian wooded area on the property north of the site. The Willamette River is immediately to the right of this picture.

U.S. Fish and Wildlife Service
Oregon Fish & Wildlife Office
2600 SE 98th Avenue, Suite 100
Portland, OR 97266

Office phone:(503) 231-6179
FAX Number:(503) 231-6195

Date: February 26, 2002
Time: 2:23pm

FAX Transmittal

To: Heather Carlsson
FAX Number: (503) 222-4292

From: USFWS Oregon State Office

Distribution

☐ Urgent - Hand Carry

☐ Call Recipient at #_____

☒ Usual Routing

Subject:
Multnomah County Threatened and Endangered Species List

Number of pages (including transmittal sheet): 3

Comments:

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES, CANDIDATE SPECIES AND SPECIES OF CONCERN THAT MAY OCCUR IN MULTNOMAH COUNTY

LISTED SPECIES[1/]

Mammals		
Columbian white-tailed deer	*Odocoileus virginianus leucurus*	E
Birds		
Bald eagle	*Haliaeetus leucocephalus*	T
Northern spotted owl[2/]	*Strix occidentalis caurina*	CH T
Fish		
Chum salmon (Lower Columbia River)[5/]	*Oncorhynchus keta*	**T
Steelhead (Middle Columbia River)[5/]	*Oncorhynchus mykiss*	**T
Steelhead (Upper Willamette River)[5/]	*Oncorhynchus mykiss*	**T
Steelhead (Lower Columbia River)[3/]	*Oncorhynchus mykiss*	**T
Steelhead (Snake River Basin)[4/]	*Oncorhynchus mykiss*	** T
Sockeye salmon	*Oncorhynchus nerka*	CH **E
Salmon River tributary to the Snake River, Idaho.		
Chinook salmon (Lower Columbia River)[8/]	*Oncorhynchus tshawytscha*	**T
Chinook salmon (Upper Willamette River)[8/]	*Oncorhynchus tshawytscha*	**T
Chinook salmon	*Oncorhynchus tshawytscha*	CH **T
Spring/summer/fall runs in the Snake River		
Bull trout (Columbia River pop)	*Salvelinus confluentus*	T
Plants		
Golden paintbrush[6/]	*Castilleja levisecta*	T
Willamette daisy[9/]	*Erigeron decumbens* var. *decumbens*	E
Howellia	*Howellia aquatilis*	T
Bradshaw's lomatium	*Lomatium bradshawii*	E
Kincaid's lupine[9/]	*Lupinus sulphureus* var. *kincaidii*	T
Nelson's checker-mallow	*Sidalcea nelsoniana*	T

PROPOSED SPECIES

Fish		
Coastal cutthroat trout (SW Washington/Lower Columbia R.)	*Oncorhynchus clarki clarki*	PT

CANDIDATE SPECIES

Coho salmon (Lower Columbia River)[10/]	*Oncorhynchus kisutch*	**CF

SPECIES OF CONCERN

Mammals	
Pacific big-eared bat	*Corynorhinus (=Plecotus) townsendii townsendii*
California wolverine	*Gulo gulo luteus*
Long-cared myotis (bat)	*Myotis evotis*
Fringed myotis (bat)	*Myotis thysanodes*
Long-legged myotis (bat)	*Myotis volans*
Yuma myotis (bat)	*Myotis yumanensis*
Birds	
Northern goshawk	*Accipiter gentilis*
Tricolored blackbird	*Agelaius tricolor*
Olive-sided flycatcher	*Contopus cooperi (=borealis)*

Little willow flycatcher	*Empidonax traillii brewsteri*
Harlequin duck	*Histrionicus histrionicus*
Amphibians and Reptiles	
Tailed frog	*Ascaphus truei*
Northwestern pond turtle	*Clemmys marmorata marmorata*
Larch Mountain salamander	*Plethodon larselli*
Northern red-legged frog	*Rana aurora aurora*
Cascades frog	*Rana cascadae*
Fish	
Green sturgeon	*Acipenser medirostris*
Pacific lamprey	*Lampetra tridentata*
Invertebrates	
California floater (mussel)	*Anodonta californiensis*
Mt. Hood primitive brachycentrid caddisfly	*Eobrachycentrus gelidae*
Great Columbia River spire snail	*Fluminicola columbianus*
Columbia Gorge neothremman caddisfly	*Neothremma andersoni*
Wahkeena Falls flightless stonefly	*Zapada wahkeena*
Plants	
Howell's bentgrass	*Agrostis howellii*
White top aster	*Aster curtus*
Tall bugbane	*Cimicifuga elata*
Cold-water corydalis	*Corydalis aquae-gelidae*
Pale larkspur	*Delphinium leucophaeum*
Peacock larkspur	*Delphinium pavonaceum*
Howell's fleabane	*Erigeron howellii*
Oregon daisy	*Erigeron oreganus*
White meconella	*Meconella oregana*
Howell's montia	*Montia howellii*
Barrett's penstemon	*Penstemon barrettiae*
Columbia cress	*Rorippa columbiae*
Oregon sullivantia	*Sullivantia oregana*

(E) - Listed Endangered *(T) - Listed Threatened* *(CH) - Critical Habitat has been designated for this species*
(PE) - Proposed Endangered *(PT) - Proposed Threatened* *(PCH) - Critical Habitat has been proposed for this species*

Species of Concern - Taxa whose conservation status is of concern to the Service (many previously known as Category 2 candidates), but for which further information is still needed.

(CF) - Candidate: National Marine Fisheries Service designation for any species being considered by the Secretary for listing for endangered or threatened species, but not yet the subject of a proposed rule.

** *Consultation with National Marine Fisheries Service required.*

[1] *U. S. Department of Interior, Fish and Wildlife Service, December 31, 1999, Endangered and Threatened Wildlife and Plants, 50 CFR 17.11 and 17.12.*

[2] *Federal Register Vol. 57, No. 10, January 15, 1992, Final Rule-Critical Habitat for the Northern Spotted Owl*

[3] *Federal Register Vol. 63, No. 53, March 19, 1998, Final Rule-West Coast Steelhead*

[4] *Federal Register Vol. 62, No. 159, August 18, 1997, Final Rule-Snake River Steelhead*

[5] *Federal Register, Vol. 64, No. 57, March 25, 1999, Final Rule - Middle Columbia River, Upper Willamette River Steelhead and Columbia River Chum Salmon*

[6] *Federal Register Vol. 62, No. 112, June 11, 1997, Final Rule-Castilleja levisecta*

[7] *Federal Register Vol. 64, No. 56, March 24, 1999, Final Rule - West Coast Chinook Salmon*

[8] *Federal Register Vol. 65, No. 16, January 25, 2000, Final Rule-Erigeron decumbens var. decumbens, Lupinus sulphureus ssp. kincaidii and Fender's blue butterfly.*

[9] *Federal Register Vol. 62, No. 87, May 6, 1997, Final Rule-Coho Salmon*

Multnomah County: updated 11/30/01

Cover Sheet

Date : 3/6/2002 Time : 3:38:16 PM

From: Cliff Alton

Company: Oregon Natural Heritage Program

Fax Number: 503-731-3070

To: Heather Carlsson

Company: URS Corporation

Fax Number: 503-222-4292

Subject: RTE species data for Linnton site

Oregon

NATURAL HERITAGE PROGRAM

1322 SE Morrison Street

Portland, OR 97214-2423

Voice: (503) 731-3070

Fax: (503) 731-3070

Message:

Ms. Carlsson -

Following should be the cover letter, invoice, and database search results for rare, threatened and endangered species occurrences in the vicinity of your Ecological Risk Assessment site in Linnton.

Let me know if you need anything else.

Cliff (cliff.alton@orst.edu)

Pages including cover page: 9

Oregon NATURAL HERITAGE PROGRAM

A Cooperative Project of :

The Nature Conservancy.

March 6, 2002

Heather Carlsson
URS Corporation
111 SW Columbia, Suite 900
Portland, OR 97201-5814

1322 SE Morrison Street
Portland, OR 97214-2423
VOICE/FAX (503) 731-3070

Dear Ms. Carlsson:

Thank you for requesting information from the Oregon Natural Heritage Program (ONHP). We have conducted a data system search for rare, threatened and endangered plant and animal records for your Linnton Ecological Risk Assessment Site in Township 1 North, Range 1 West, Section 3, W.M.

Ten (10) records were noted within a two-mile radius of your project and are included on the enclosed computer printout. A key to the fields is also included.

Please remember that the lack of rare element information from a given area does not mean that there are no significant elements there, only that there is no information known to us from the site. To assure that there are no important elements present, you should inventory the site, at the appropriate season.

Please note that at this time ONHP does not have comprehensive computerized records available for all anadromous fish in Oregon. I have listed below the species that may be present within the waterways contained in the project area. I have also included their listing by the National Marine Fisheries Service (NMFS). For more information on anadromous fish you may wish to contact NMFS at: 525 NE Oregon Street; Portland, Oregon 97232-2737. Please also note that the U.S. Fish and Wildlife Service now has jurisdiction over coastal cutthroat trout.

Coastal cutthroat trout (Columbia River/SW Washington)	*Oncorhynchus clarki clarki*	Proposed Threatened
Coho salmon (Lower Columbia River)	*Oncorhynchus kisutch*	Candidate
Steelhead (Lower Columbia River)	*Oncorhynchus mykiss*	Threatened
Steelhead (Middle Columbia River)	*Oncorhynchus mykiss*	Threatened
Steelhead (Upper Willamette River)	*Oncorhynchus mykiss*	Threatened
Chinook salmon (Lower Columbia River)	*Oncorhynchus tshawytscha*	Threatened
Chinook salmon (Upper Willamette River)	*Oncorhynchus tshawytscha*	Threatened

This data is confidential and for the specific purposes of your project and is **not to be distributed**.

If you need additional information or have any questions, please do not hesitate to contact me.

Sincerely,

Cliff Alton
Conservation Information Assistant

encl.: invoice (H-030602-CWA1)
computer printout and data key

NAME: COCCYZUS AMERICANUS
COMMON NAME: YELLOW-BILLED CUCKOO
EO-CODE: ABNRB02020*026 LAST OBS: 1985 FED STATUS: C
COUNTY(s): MULTNOMAH FIRST OBS: 1923-06-08 STATE STATUS: SC
QUAD NAMES: PORTLAND LAT: 453712N SIZE: 0
PHYSIOGRAPHIC PROV: WV LONG: 1224300W MINELEV (Feet): 10
T-R-S: 002N001E 32 QUADCODE: 4512256 MAXELEV (Feet):
T-R-S COMMENTS: PRECISION: G
EO-RANK/COMM: D :
DIRECTIONS: PORTLAND-ALONG THE COLUMBIA RIVER FROM THE MOUTH OF THE WILLAMETTE N TO WHAT IS NOW THE PORTLAND AIRPORT
DESCRIPTION: COLUMBIA RIVER BOTTOMLANDS
EO-DATA: 1985: 1 CUCKOO HEARD. 1940: 2 BIRDS ON 7-27. 1923: AT LEAST 12 BIRDS ON 6-8.
EOTYPE:
COMMENTS: OBSERVERS: MIKE HOUCK (1985), W.H. TELFER (1940), GABRIELSON AND JEWETT (1923).
ANNUAL OBSERVATION:
OWNER: PRIVATE
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: HOUCK, MIKE. PORTLAND AUDUBON SOCIETY.

NAME: ONCORHYNCHUS KISUTCH POP 1
COMMON NAME: COHO SALMON (LOWER COLUMBIA RIVER/SW WASHINGTON COAST RUNS)
EO-CODE: AFCHA02031*037 LAST OBS: 1999-PRE FED STATUS: C
COUNTY(s): COLUMBIA FIRST OBS: STATE STATUS: LE
MULTNOMAH
CLACKAMAS
QUAD NAMES: OREGON CITY LAT: SIZE:
GLADSTONE
LAKE OSWEGO
PORTLAND
LINNTON
SAUVIE ISLAND
ST HELENS
PHYSIOGRAPHIC PROV: LONG: MINELEV (Feet):
T-R-S: QUADCODE: 4512235 MAXELEV (Feet):
4512245
4512246
4512256
4512257
4512267
4512277
T-R-S COMMENTS: PRECISION: M
EO-RANK/COMM: :
DIRECTIONS: SCAPPOOSE BAY, MULTNOMAH CHANNEL, WILLAMETTE RIVER
DESCRIPTION:
EO-DATA: ODFW DISTRIBUTION MAPS USED TO CREATE THE 1:24,000 COVERAGE
EOTYPE: REARING & MIGRATION - fish
COMMENTS: DISTRIBUTION INFORMATION USED IN THIS EOR WAS DERIVED FROM ODFW GEOGRAPHIC RESOURCES DATA PRODUCED AND DISTRIBUTED IN 1999. UNLESS SPECIFIC DATA EXISTS IN THE DATA FIELD, THE INFORMATION PRESENTED IN THIS EOR REPRESENTS THE "BEST PROFESSIONAL JUDGMENT" BY ODFW'S DISTRICT FISHERIES BIOLOGIST; THE PRESENCE OF COHO IN DESCRIBED AREAS SHOULD BE CONSIDERED UNDOCUMENTED BUT AS HAVING A POTENTIAL OF BEING PRESENT.
ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: 2000 ODFW GEOGRAPHIC RESOURCES DATA: MASSEY, JAY; BENNETT, DON.

NAME: ONCORHYNCHUS TSHAWYTSCHA POP 21
COMMON NAME: CHINOOK SALMON - LOWER COLUMBIA RIVER SPRING RUN

EO-CODE: AFCHA0205W*006 LAST OBS: 1999-PRE FED STATUS: LT
COUNTY(s): CLACKAMAS FIRST OBS: STATE STATUS:
MULTNOMAH
COLUMBIA
QUAD NAMES: OREGON CITY LAT: SIZE:
GLADSTONE
LAKE OSWEGO
PORTLAND
LINNTON
SAUVIE ISLAND
ST HELENS
PHYSIOGRAPHIC PROV: LONG: MINELEV (Feet):
T-R-S: QUADCODE: 4512235 MAXELEV (Feet):
4512245
4512246
4512256
4512257
4512267
4512277
T-R-S COMMENTS: PRECISION: M
EO-RANK/COMM: :
DIRECTIONS: SCAPPOOSE BAY, MULTNOMAH CHANNEL, WILLAMETTE RIVER
DESCRIPTION:
EO-DATA: SPRING RUN; ODFW DISTRIBUTION MAPS USED TO CREATE THE 1:24,000 COVERAGE
EOTYPE: REARING & MIGRATION - fish
COMMENTS: DISTRIBUTION INFORMATION USED IN THIS EOR WAS DERIVED FROM ODFW GEOGRAPHIC RESOURCES DATA PRODUCED AND DISTRIBUTED IN 1999. UNLESS SPECIFIC DATA EXISTS IN THE DATA FIELD. THE INFORMATION PRESENTED IN THIS EOR REPRESENTS THE "BEST PROFESSIONAL JUDGMENT" BY ODFW'S DISTRICT FISHERIES BIOLOGIST: THE PRESENCE OF CHINOOK IN DESCRIBED AREAS SHOULD BE CONSIDERED UNDOCUMENTED BUT AS HAVING A POTENTIAL OF BEING PRESENT.
ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: 2000 ODFW GEOGRAPHIC RESOURCES DATA; MASSEY, JAY; BENNETT, DON.

NAME: ONCORHYNCHUS TSHAWYTSCHA POP 22
COMMON NAME: CHINOOK SALMON - LOWER COLUMBIA RIVER FALL RUN
EO-CODE: AFCHA0205Y*006 LAST OBS: 1999-PRE FED STATUS: LT
COUNTY(s): CLACKAMAS FIRST OBS: STATE STATUS: SC
MULTNOMAH
COLUMBIA
QUAD NAMES: OREGON CITY LAT: SIZE:
GLADSTONE
LAKE OSWEGO
PORTLAND
LINNTON
SAUVIE ISLAND
PHYSIOGRAPHIC PROV: LONG: MINELEV (Feet):
T-R-S: QUADCODE: 4512235 MAXELEV (Feet):
4512245
4512246
4512256
4512257
4512267
T-R-S COMMENTS: PRECISION: M
EO-RANK/COMM: :
DIRECTIONS: SCAPPOOSE BAY & TRIBUTARIES, WILLAMETTE RIVER & TRIBUTARIES
DESCRIPTION:
EO-DATA: FALL RUN; ODFW DISTRIBUTION MAPS USED TO CREATE THE 1:24,000 COVERAGE
EOTYPE: REARING & MIGRATION - fish
COMMENTS: DISTRIBUTION INFORMATION USED IN THIS EOR WAS DERIVED FROM ODFW GEOGRAPHIC RESOURCES DATA PRODUCED AND

DISTRIBUTED IN 1999. UNLESS SPECIFIC DATA EXISTS IN THE DATA FIELD. THE INFORMATION PRESENTED IN THIS EOR REPRESENTS THE "BEST PROFESSIONAL JUDGMENT" BY ODFW'S DISTRICT FISHERIES BIOLOGIST; THE PRESENCE OF CHINOOK IN DESCRIBED AREAS SHOULD BE CONSIDERED UNDOCUMENTED BUT AS HAVING A POTENTIAL OF BEING PRESENT.

ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: 2000 ODFW GEOGRAPHIC RESOURCES DATA; MASSEY, JAY; BENNETT, DON: CALDWELL, DICK.

NAME: ONCORHYNCHUS MYKISS POP 27
COMMON NAME: STEELHEAD - LOWER COLUMBIA RIVER WINTER RUN
EO-CODE: AFCHA02132*001 LAST OBS: 1999-PRE FED STATUS: LT
COUNTY(s): CLACKAMAS FIRST OBS: STATE STATUS: SC
MULTNOMAH
COLUMBIA
QUAD NAMES: OREGON CITY LAT: SIZE:
GLADSTONE
LAKE OSWEGO
PORTLAND
LINNTON
SAUVIE ISLAND
ST HELENS
PHYSIOGRAPHIC PROV: LONG: MINELEV (Feet):
T-R-S: QUADCODE: 4512235 MAXELEV (Feet):
4512245
4512246
4512256
4512257
4512267
4512277
T-R-S COMMENTS: PRECISION: M
EO-RANK/COMM: :
DIRECTIONS: SCAPPOOSE BAY, MULTNOMAH CHANNEL, WILLAMETTE RIVER
DESCRIPTION:
EO-DATA: WINTER RUN: ODFW DISTRIBUTIION MAPS USED TO CREATE THE 1:24,000 COVERAGE
EOTYPE: REARING & MIGRATION - fish
COMMENTS: DISTRIBUTION INFORMATION USED IN THIS EOR WAS DERIVED FROM ODFW GEOGRAPHIC RESOURCES DATA PRODUCED AND DISTRIBUTED IN 1999. UNLESS SPECIFIC DATA EXISTS IN THE DATA FIELD. THE INFORMATION PRESENTED IN THIS EOR REPRESENTS THE "BEST PROFESSIONAL JUDGMENT" BY ODFW'S DISTRICT FISHERIES BIOLOGIST; THE PRESENCE OF STEELHEAD IN DESCRIBED AREAS SHOULD BE CONSIDERED UNDOCUMENTED BUT AS HAVING A POTENTIAL OF BEING PRESENT.
ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: 2000 ODFW GEOGRAPHIC RESOURCES DATA; MASSEY, JAY; BENNETT, DON.

NAME: CHRYSEMYS PICTA
COMMON NAME: PAINTED TURTLE
EO-CODE: ARAAD01010*022 LAST OBS: 1993-06 FED STATUS:
COUNTY(s): MULTNOMAH FIRST OBS: 1985-06 STATE STATUS: SC
QUAD NAMES: PORTLAND LAT: 453655N SIZE: 0
PHYSIOGRAPHIC PROV: WV LONG: 1224425W MINELEV (Feet): 10
T-R-S: 002N001E 31 QUADCODE: 4512256 MAXELEV (Feet):
T-R-S COMMENTS: PRECISION: M
EO-RANK/COMM: A :
DIRECTIONS: SMYTH-BYBEE LAKES
DESCRIPTION: SUNNING LOGS & SNAILS ABUNDANT. NO OTHER TURTLE SPECIES PRESENT. BULLFROGS ABUNDANT
EO-DATA: 1993: 128 INDIVIDUALS OBSERVED. 1985: 1 PAINTED TURTLE OBSERVED.
EOTYPE:

COMMENTS: OBSERVERS: MARK HAYES AND DAN HOLLAND (1993). PHILLIP GADDIS AND CHAR CORKRAN (1985).
ANNUAL OBSERVATION:
OWNER: PRIVATE
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: BRUCE, CHARLIE. ODFW BIOLOGIST.

NAME: HOWELLIA AQUATILIS
COMMON NAME: HOWELLIA
EO-CODE: PDCAM0A010*006 LAST OBS: 1886-05 FED STATUS: LT
COUNTY(s): MULTNOMAH FIRST OBS: 1879 STATE STATUS:
QUAD NAMES: SAUVIE ISLAND LAT: 454105N SIZE: 0
PHYSIOGRAPHIC PROV: WV LONG: 1224855W MINELEV (Feet): 75
T-R-S: 002N001W 04 QUADCODE: 4512267 MAXELEV (Feet):
T-R-S COMMENTS: PRECISION: G
EO-RANK/COMM: :
DIRECTIONS: SAUVIE ISLAND. WILLAMETTE SLOUGH (J. HOWELL #187)
DESCRIPTION: PONDS. IN STAGNANT WATER (J. HOWELL, #187).
EO-DATA: HERBARIUM COLLECTION: HOWELL, 5-1886, OSC; HENDERSON, #592, 5-9-1885. OSC: J. HOWELL AND T. HOWELL. S.N., 5-1881, WTU, GH: J. HOWELL, S.N., 8-10-1879, GH; J. HOWELL, #187. 5-1879, GH
EOTYPE:
COMMENTS: TYPE LOCALITY. RELOCATION EFFORTS UNSUCCESSFUL.
ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: HOWELL COLLECTION

NAME: CIMICIFUGA ELATA
COMMON NAME: TALL BUGBANE
EO-CODE: PDRAN07030*023 LAST OBS: 1887-07 FED STATUS:
COUNTY(s): MULTNOMAH FIRST OBS: 1887 STATE STATUS: C
QUAD NAMES: SAUVIE ISLAND LAT: 454105N SIZE:
PHYSIOGRAPHIC PROV: WV LONG: 1224855W MINELEV (Feet):
T-R-S: 002N001W 04 QUADCODE: 4512267 MAXELEV (Feet):
T-R-S COMMENTS: PRECISION: G
EO-RANK/COMM: :
DIRECTIONS: FIR FOREST, SAUVIES ISLAND
DESCRIPTION:
EO-DATA: HERBARIUM COLLECTION: THOMAS HOWELL S.N., 7-1887, BR
EOTYPE:
COMMENTS:
ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: THOMAS HOWELL COLLECTION

NAME: SULLIVANTIA OREGANA
COMMON NAME: OREGON SULLIVANTIA
EO-CODE: PDSAX0X020*012 LAST OBS: 1887- FED STATUS: SOC
COUNTY(s): MULTNOMAH FIRST OBS: 1887 STATE STATUS: C
COLUMBIA
QUAD NAMES: SAUVIE ISLAND LAT: 454004N SIZE: 0
PHYSIOGRAPHIC PROV: WV LONG: 1224835W MINELEV (Feet): -1111
T-R-S: 002N001W 09 QUADCODE: 4512267 MAXELEV (Feet):
T-R-S COMMENTS: PRECISION: G
EO-RANK/COMM: :
DIRECTIONS: SAUVIES ISLAND, MILWAUKIE (MAPPED ON SAUVIES ISLAND)

DESCRIPTION:
EO-DATA: HERBARIUM COLLECTION: JOSEPH HOWELL, 1887, G. (ASSUMED TO BE GRAY HERBARIUM)
EOTYPE:
COMMENTS: FROM ROSENDAHL, C.O. 1927. REVISION OF THE GENUS SULLIVANTIA. MINN STUD. PLANT SCI 6:407
ANNUAL OBSERVATION:
OWNER:
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: JOSEPH HOWELL COLLECTION

NAME: WOLFFIA COLUMBIANA
COMMON NAME: COLUMBIA WATER-MEAL
EO-CODE: PMLEM03030*002 LAST OBS: 1991-07-03 FED STATUS:
COUNTY(s): MULTNOMAH FIRST OBS: 1991 STATE STATUS:
QUAD NAMES: PORTLAND LAT: 453650N SIZE: 100
PHYSIOGRAPHIC PROV: WV LONG: 1224358W MINELEV (Feet): 20
T-R-S: 002N001E 31 QUADCODE: 4512256 MAXELEV (Feet):
T-R-S COMMENTS: PRECISION: M
EO-RANK/COMM: B :
DIRECTIONS: FROM I-5, FOLLOW COLUMBIA BLVD. WEST TO RIVERGATE, HEAD WEST ON RIVERGATE TO BOAT LANDING ON SMITH LAKE.
DESCRIPTION:
EO-DATA: NOT ABUNDANT IN SHELTERED AREAS, EDGE OF SALIX LASIANDRA SWAMP. WITH LEMNA MINOR.
EOTYPE:
COMMENTS:
ANNUAL OBSERVATION:
OWNER: PORT OF PORTLAND
MANAGED AREA:
MANAGE COMM:
PROT COMM:
BEST SOURCE: CHRISTY, JOHN A.

10 Records listed.

KEY TO PRINTOUT

NAME AND COMMON NAME: The scientific and common name of the species.

EO-CODE (element occurrence code): Unique Heritage Program code for this occurrence. The first 10 characters are the code for the species, and the last 3 are the occurrence number.

COUNTY(S): County name(s)

QUAD NAMES: Name of the USGS 7.5' topographic quadrangle map(s) where the record is mapped.

PHYSIOGRAPHIC PROVINCE: Code for physiographic province.

- **BM** = Ochoco, Blue and Wallowa Mts.
- **BR** =Basin and Range
- **CR** = Coast Range
- **CB** = Columbia Basin
- **EC** = East slope of the Cascades
- **KM** = Klamath Mountains
- **HP** = High Lava Plains
- **OU** = Owyhee uplands
- **WC** = West slope and crest of the Cascades
- **WV** = Willamette Valley

T-R-S: Township, Range and Section, with township first, range second and section third (a space appears between range and section). 004S029E 32 = Township 4S, Range 29E, Section 32. Fractional townships and ranges are further defined in the T-R COMMENTS field.

T-R-S COMMENTS: Comments relating to township, range or section(s), e.g. SE4NE4 or SENE=SE 1/4 of the NE 1/4

LASTOBS: Last reported sighting date, in the form YYYY-MM-DD

FIRSTOBS: First reported sighting date for this occurrence in the form YYYY-MM-DD

LAT: latitude, North

LONG: longitude, West

QUADCODE: Heritage Program code for the USGS 7.5' topo map

FED STATUS: US Fish and Wildlife Service status

- **LE** = listed endangered
- **LT** = listed threatened
- **PE** = proposed endangered
- **PT** = proposed threatened
- **SOC** = species of concern
- **C** = candidate for listing with enough information available for listing

STATE STATUS: For animals, Oregon Department of Fish and Wildlife status

- **LE**=listed endangered
- **PE**=proposed endangered
- **PT**=proposed threatened
- **SC** or **C**=sensitive-critical
- **SV** or **V**=sensitive-vulnerable
- **SP** or **P**=sensitive peripheral or naturally rare
- **SU** or **U**=sensitive-undetermined.

SIZE: in acres, whole numbers. 0=unknown

MINELEV: Minimum elevation, in feet.

MAXELEV: Maximum elevation, in feet.

PRECISION: Second (S) = exact location; Minute (M) = location known to nearest 1.5 miles; General (G) = location known to nearest 5 miles.

EO-RANK/COMM: Relative quality of this occurrence (A=best site, B=good population or site, C=fair or small population, D=marginal or destroyed occurrence)

DIRECTIONS: Site name and direction to site

DESCRIPTION: Habitat information, e.g. aspect, slope, soils, associated species community type, etc.

EO-DATA: Species and population biology - numbers, age, nesting success, vigor, phenology disease, etc.

EOTYPE: For animals, type of occurrence (e.g. roost, nest, etc.)

COMMENTS: Miscellaneous comments

ANNUAL OBSERVATIONS: Summary of yearly observations

OWNER: federal, state, private, etc.

MANAGED AREA: BLM district, USFS Forest, Private Preserve, etc.

MANAGE COMM: Comments on how the site is managed.

PROT COMM (Protection Comments): Comments regarding protectibility and threats.

BEST SOURCE: Best source of information for this occurrence.